OIPE JC18
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PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Ibrahim Abdulhalim, et al.		
Title:	Periodic Patterns And Technique To Control Misalignment Between Two Layers		
Application No.:	10/682,544	Filing Date:	October 8, 2003
Examiner:	Unknown	Group Art Unit:	2877
Docket No.:	TNCR.196US1	Conf. No.:	9738

Certificate of Mailing Under 37 CFR 1.8

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Tracy Mayo
Signature

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) call(s) the documents listed on the enclosed Form PTO-1449 to the Examiner's attention in this patent application.

Copies of the documents listed on the accompanying Form PTO-1449 are enclosed.

Citation of these documents shall not be construed as (1) an admission that the documents are prior art with respect to the invention or inventions claimed in this application, (2) a representation that a search has been made (other than as indicated by any cited document), or (3) an admission that the cited information is, or is considered to be, material to patentability as defined in § 1.56(b).

This information disclosure statement is submitted under 37 C.F.R. § 1.97(b) and consequently no fee should be required. The Commissioner is authorized, however, to charge any fee that may be required, or to credit any overpayment, against Deposit Account No. 502664. This form is being submitted in duplicate.

Respectfully submitted,

3/1/04

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U.S. Department of Commerce, Patent and Trademark	Atty. Docket No.	Application No.
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U.S. Patent Documents

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	1	4,103,998	Aug. 1, 1978	Nakazawa et al.			
	2	4,167,337	Sep. 11, 1979	Jaerisch et al.			
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*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
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✓	81	"Interferometric Measurement System for Overlay Measurement in Lithographic Processes", IBM TDB, Feb. 1994.
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✓	85	"Characterization and Monitoring of Variable NA and Variable Coherence Capable Photo Steppers Utilizing the Phase Shift Focus Monitor Reticule", Journal: Proceedings of the SPIE, vol. 2439, p. 61-9. (Abstract)
✓	86	"Modeling of Optical Scatterometry with Finite-Number-of-Periods Grating", Journal: Proceedings of the SPIE, vol. 3743, p. 41-8. (Abstract)
✓	87	"Grazing Incidence Diffraction By Laterally Patterned Semiconductor Nanostructures", Journal: Journal of Physics, vol. 32 no. 6, p. 726-40. (Abstract)
✓	88	"A Mask-to-Wafer* Alignment and Gap Setting Method for E-Ray Lithography Using Gratings", Journal: Journal of Vacuum Science & Technology B. vol. 9, no. 6. p. 3202-6. (Abstract)
✓	89	"Diffraction and Interference Optics for Monitoring Fine Dimensions in Device Manufacture", Solid State Devices, 1983. (Abstract)
✓	90	"Performance of New Overlay Measurement Mark", Sung-Man Bae and Ki-Ho Baik, SPIE, vol. 2725 p. 424-435.
✓	91	"Automatic Classification of Spatial Signatures on Semiconductor Wafermaps", Tobin et al., SPIE, vol. 3050, p. 434-444.
✓	92	"Kinetics of the Diffraction Efficiency of Light-Induced Dynamic Gratings in Layers of Disordered Semiconductors", Arkhipov et al., Quantum Electron, vol. 23, November 1993, p. 986-988.
✓	93	"Optimal Sampling Strategies for sub-100 nm Overlay", Rangarajan et al., SPIE, vol. 3332, p. 348-359.
✓	94	"Super Sparse Overlay Sampling Plans: An Evaluation of Methods and Algorithms for Optimizing Overlay Quality Control and Metrology Tool Throughput", Pellegrini et al., SPIE, vol. 3677, p. 72-82, March 1999.
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✓	96	"Formation of Periodic Diffraction Structures at Semiconductor Surfaces for Studying the Dynamics of Photoinduced Phase Transitions", Fattakhov et al., Optics and Spectroscopy, vol. 89, p. 136-142 (2000)
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OTHER ART – con. (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	99	"A New Technique for Multiple Overlay Check", Auzino et al., Microelectronic Engineering, p. 41-42. (Abstract)
✓	100	"Alignment Mark Optimization to Reduce Tool and Wafer-Induced Shift for XTRA-1000", Ina et al., Japanese Journal of Applied Physics, vol. 38, no. 12B, p. 7065-70. (Abstract)
✓	101	"Towards the Optimal Design of Binary Optical Elements with Different Phase Levels Using a Method of Phase Mismatch Correction", Kodate et al., Trends in Optics and Photonics, vol. 41, p. 174-6. (Abstract)

Examiner	Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.